

**AMENDMENTS TO THE CLAIMS**

Claim 1. (Currently Amended) A measuring device for measuring the properties of multi-segmented filters (61—64) in the tobacco-processing industry, comprising:

~~by means of a light transmission method,~~

a first measuring device comprising a first radiation source adapted to radiate light onto the multi-segmented filters, and a first radiation receiver adapted to receive light reflected off of the multi-segmented filters; and

a second measuring device comprising a second radiation source adapted to radiate light through the multi-segmented filters, and a second radiation receiver adapted to receive light transmitted through the multi-segmented filters;

wherein ~~a radiation source (85) and a radiation receiver (82, 80) are provided and the second radiation source (85) permits an~~ radiates light essentially uniformly ~~radiation in along a~~ longitudinal axial direction of a the multi-segmented filters (61—64), ~~characterized in that and~~ the second radiation receiver (82, 80) is arranged within a conveying element (21, 31, 34) ~~which is designed for conveying~~ adapted to convey at least the multi-segmented filters (61 to 64).

Claim 2. (Currently Amended) The measuring device according to claim 1, ~~characterized in that~~ wherein the second radiation source (85) comprises a plurality of individual radiation sources (81), located in a receiving trough of the conveying element and arranged in along the longitudinal axial direction of ~~a receiving trough provided in the conveying element~~ (21, 31, 34) the multi-segmented filters.

Claim 3. (Currently Amended) The measuring device according to claim 2,  
~~characterized in that~~ wherein the individual radiation sources (81) are light-emitting diodes.

Claim 4. (Currently Amended) The measuring device according to claim 1,  
~~characterized in that~~ wherein the second radiation receiver (72, 80) comprises ~~at least one~~  
~~receiving element (72), in particular extending in longitudinal axial direction of a receiving~~  
~~trough arranged in the conveying element (21, 31, 34), or a plurality of receiving elements (80)~~  
that are arranged in a receiving trough of the conveying element, along the longitudinal axial  
direction of the multi-segmented filters ~~a receiving trough arranged in the conveying element (21,~~  
~~31, 34).~~

Claim 5. (Currently Amended) The measuring device according to claim 4, wherein  
~~characterized in that photodiodes are used for the receiving elements (80)~~ comprise photodiodes.

Claim 6. (Currently Amended) A system for measuring the properties of rod-shaped  
articles in the tobacco-processing industry or components of rod-shaped articles that are  
subsequently combined to form rod-shaped articles, ~~in particular multi-segmented filters (61 to~~  
~~64) and/or filter cigarettes provided with multi-segmented filters (61 to 64) by using~~ comprising:  
a first measuring device (41) ~~for measuring the articles or components of the articles with~~  
~~a reflection technique, characterized in that~~ comprising a first radiation source adapted to radiate  
light onto the rod-shaped articles or components of rod-shaped articles, and a first radiation

receiver adapted to receive light reflected off of the rod-shaped articles or components of rod-shaped articles; and

~~a second measuring device (43) is provided for measuring the articles or components of the articles by means of a light transmission method~~ comprising a second radiation source adapted to radiate light through the rod-shaped articles or components of rod-shaped articles, and a second radiation receiver adapted to receive light transmitted through the rod-shaped articles or components of rod-shaped articles.

Claim 7. (Currently Amended) The measuring system according to claim 6, ~~eharacterized in that the second measuring device (43) is a measuring device for measuring the properties of multi-segmented filters (61—64) in the tobacco processing industry by means of a light transmission method, wherein a radiation source (85) and a radiation receiver (82, 80) are provided and wherein the second radiation source (85) permits an~~ radiates light essentially uniformly ~~radiation in~~ along a longitudinal axial direction of a ~~the rod-shaped articles or components of rod-shaped articles~~ multi-segmented filter (61—64), characterized in that and the radiation receiver (82, 80) is arranged within a conveying element (21, 31, 34) which is designed adapted for conveying at least the components of rod-shaped articles ~~multi-segmented filters (61 to 64).~~

Claim 8. (Currently Amended) The measuring system according to claim 6, ~~eharacterized in that~~ further comprising a third measuring device (42) ~~is provided, by means of~~

~~which adapted to measure the rod-shaped articles or components of the rod-shaped articles are measured with a reflection technique using light reflected off of the rod-shaped articles or components of the rod-shaped articles.~~

Claim 9. (Currently Amended) The measuring system according to claim [[6]] 8, ~~wherein characterized in that~~ the first and second measuring devices (41 to 43) are arranged adapted to be located in and/or on a filter tipping machine (1).

Claim 10. (Currently Amended) The measuring system according to claim 9, ~~characterized in that wherein~~ the first measuring device (41) is ~~arranged in a region of the production process for rod-shaped articles that is~~ adapted to be located downstream of a station (5) for combining the components (60 to 64) ~~or of the rod-shaped articles.~~

Claim 11. (Currently Amended) The measuring system according to claim 10, ~~characterized in that wherein~~ the first measuring device (41) is adapted to be arranged on and/or in a transfer drum (21) ~~that is located downstream of the~~ a first drum (5) which combines the components of the rod-shaped articles.

Claim 12. (Currently Amended) The measuring system according to claim 9, ~~characterized in that wherein~~ the second and/or third measuring device (42, 43) is adapted to be arranged in a region ~~where rod-shaped articles are produced and which is located downstream of~~

a tipping station (23, 24) where an article (60 to 64) is wrapped at least partially with a tipping paper (52).

Claim 13. (Currently Amended) The measuring system according to claim 10, ~~characterized in that~~ wherein the station consists at least in part of drums.

Claim 14. (Currently Amended) The measuring system according to claim 6, ~~characterized in that~~ wherein the first ~~and/or the third measuring device (41, 43) comprises a~~ radiation source radiates the (85) ~~by means of which~~ rod-shaped articles or components (60 to 64) of rod-shaped articles ~~essentially can be radiated~~ within a measuring range, and that the first ~~and/or third measuring device (41, 43) comprises a~~ radiation receiver (72) ~~for receiving~~ receives the radiation reflected by the articles (60 to 64) or the components (60 to 64, 52).

Claim 15. (Currently Amended) The measuring system according to claim 14, ~~characterized in that~~ wherein the radiation receiver (72, 80) comprises ~~several~~ a plurality of receiving elements (80) ~~that are~~ arranged in a row.

Claim 16. (Currently Amended) The measuring system according to claim 14, ~~characterized in that~~ wherein the radiation receiver (72, 80) is a position-sensitive receiver that extends in at least one direction and, ~~in particular,~~ comprises a charge-coupled device (CCD).

Claim 17. (Currently Amended) A filter tipping machine (1) with a system for measuring the properties of rod-shaped articles in the tobacco-processing industry or components of rod-shaped articles that are subsequently combined to form rod-shaped articles, ~~in particular multi-segmented filters (61 to 64) and/or filter cigarettes provided with multi-segmented filters (61 to 64) by using~~ comprising:

a first measuring device (41) ~~for measuring the articles or components of the articles with a reflection technique,~~ comprising a first radiation source adapted to radiate light onto the rod-shaped articles or components of rod-shaped articles, and a first radiation receiver adapted to receive light reflected off of the rod-shaped articles or components of rod-shaped articles; and ~~characterized in that~~

a second measuring device (43) ~~is provided for measuring the articles or components of the articles by means of a light transmission method,~~ comprising a second radiation source adapted to radiate light through the rod-shaped articles or components of rod-shaped articles, and a second radiation receiver adapted to receive light transmitted through the rod-shaped articles or components of rod-shaped articles wherein ~~at least one of the~~ second measuring devices is adapted for measuring the properties of multi-segmented filters (61—64) ~~in the tobacco-processing industry by means of a light transmission method, wherein a radiation source (85) and a radiation receiver (82, 80) are provided and the~~ second radiation source (85) ~~permits an~~ radiates light essentially uniformly ~~radiation in along the~~ longitudinal axial direction of a the multi-segmented filters; (61—64), ~~characterized in that~~

wherein the second radiation receiver (82, 80) is arranged within a conveying element

(21, 31, 34) which is ~~designed for conveying~~ adapted to convey at least the multi-segmented filters ~~(61 to 64)~~.

Claim 18. (Currently Amended) A quality assurance method for filter cigarettes with multi-segmented filters ~~(61 to 64)~~, ~~wherein~~ comprising:

reflecting radiation off of the values for the radiation reflected by the filter components (61 to 64) of the multi-segmented filter in a first measuring device, and measuring a first measured value of the reflected radiation; are

compared comparing the first measured value to first set values; ~~with the aid of a reflection technique and in a first measuring device (41) and wherein~~

discarding the filter cigarette or the components (60 to 64) of the filter cigarette are discarded if the deviations exceed the values of if a difference between the first measured value and the first set values exceeds a first preset tolerance range;

transmitting radiation through the filter components of the multi-segmented filter, and a tipping paper surrounding the filter components, in a second measuring device, and measuring a second measured value of the radiation transmitted through the filter components and the tipping paper;

comparing the second measured value to second set values; and

discarding the filter cigarette or the components of the filter cigarette if a difference between the second measured value and the second set values exceeds a second preset tolerance range.

Claim 19. (Cancelled)

Claim 20. (Currently Amended) The method according to claim 18, ~~characterized in that~~  
~~the further comprising:~~

~~reflecting radiation off of reflected by the tipping paper (52), wrapped around the multi-~~  
~~segmented filter (61—64), is compared to third set values in a third measuring device (42) by~~  
~~means of a reflection technique, and measuring a third measured value of the reflected radiation;~~

~~comparing the third measured value to third preset values; and~~

~~wherein the filter cigarette is discarded if the values deviate by exceeding~~ discarding the  
filter cigarette or the components of the filter cigarette if a difference between the third measured  
value and the third preset value exceeds a preset third preset tolerance range.